Title (en)

Storage-stable fibrinogen preparations

Title (de)

Lagerstabile Fibrinogen-Präparate

Title (fr)

Préparations de fibrinogène stables au stockage

Publication

EP 0804933 A2 19971105 (DE)

Application

EP 97106568 A 19970421

Priority

DE 19617369 A 19960430

Abstract (en)

A storage-stable, lyophilised or deep-frozen liquid, fibrinogen (FBG) composition (A), for the rapid production of a ready-for-use tissue adhesive solution (B), contains a solubiliser (I) for FBG. The time for reconstitution of lyophilised (A) by dissolution in water at room temperature to give a solution containing ≥ 70 mg/ml FBG is up to 15 (preferably < 7) minutes. Deep-frozen (A) can be thawed at 0-25 (preferably < 20) degrees C to a solution containing ≥ 70 mg/ml of FBG. (B) forms fibrin clots with a physiological fibrin structure after mixing with thrombin-calcium chloride solution. Also claimed is (B) obtained by reconstitution or thawing of (A), as is a lyophilised FBG preparation (A') containing (I) having no cytotoxic action at the dose used. (A) contains (I) at 0.003-3 (preferably 0.7-1.4) mg/g of FBG. (B), after mixing with the same volume of 4 IU/ml thrombin/40 mu mol/ml CaCl2 solution, forms a transparent, tough elastic fibrin clot in at most 10 minutes at 37 degrees C. (B) has no cytotoxicity and, on dilution with the same volume of isotonic saline, shows no detectable harmful effect on fibroblasts. (A') contains (I) at 0.12-12 (preferably 0.28-5.6) mmol/g of FBG. (I) is (a) a benzene, pyridine, piperidine, pyrimidine, morpholine, pyrrole, imidazole, pyrazole, furan, thiazole or purine derivative, having no cytotoxicity at the concentration used in (A), (b) a vitamin or (c) a nucleo-base, nucleoside or nucleotide. (I) is especially benzoic acid, p-aminobenzoic acid (vitamin H'), hydroxybenzoic acid, hydroxysalicylic acid, phenylalanine, procaine, niacin, niacinamide, picolinic acid, vitamin B6 (pyridoxine), hydroxypyridine, pyridine-dicarboxylic acid, pyridine-sulphonic acid, piperidine-carboxylic acid, etc.

Abstract (de)

Die Erfindung betrifft lagerstabile Fibinogenpräparate zur Bereitung von konzentrierten Fibrinogenlösungen zur Verwendung als Gewebeklebstoff oder zur Bereitung von Fibrinogenlösungen für andere Anwendungen, beispielsweise für Infusionszwecke. Diese Fibrinogenpräparate sind dadurch gekennzeichnet, dass (i) das lyophilisierte Präparat eine die Löslichkeit von Fibrinogen verbessernde Substanz enthält, so dass die Rekonstitutionszeit bei Auflösen mit Wasser bei Raumtemperatur zu einer Lösung mit einem Fibrinogengehalt von mindestens 70 mg/ml weniger als 15 Minuten, vorzugsweise weniger als 7 Minuten beträgt, und (ii) die aus dem Präparat erhaltene gebrauchsfertige Gewebeklebstofflösung nach Mischen mit einer Thrombin-CaCl2-Lösung Fibrinclots mit physiologischer Fibrinstruktur ausbildet.

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IPC 8 full level

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